

REMARKS

All of the originally presented claims stand rejected. Referring to the previous claims, Claims 22, 23, and 27-32 have been deleted. Claims 33-41 have been added. Claims 1-21 and 24-25 have been amended. Finally, Claim 26 remains unchanged.

The amendments of the independent Claims 1 and 24 have a character of clarifying the invention, while the amendments of the dependent claims are required in light of the amendments of the independent claims.

Claims 15 and 16 have been corrected in accordance with paragraph 1 of the Office Action.

As regards paragraphs 2 and 3 of the Office Action, in Claim 9 the word "a" has been substituted for "the"; in Claims 17 and 18 the phrase "an amount of" has been added before the word "traffic"; and in Claim 19.

Claims 24-26 are not anticipated by Clanton, at least for the following reasons.

Response to Rejection of Claims 24-26, 28 and 31

Clanton does not disclose "circuit-switched channels are allocated to respective sets of time slots." In Clanton, a channel is defined by one time slot.

Clanton does not disclose "slot allocating means provided to receive requests for time slots and to deallocate time slots from said established channels, for allocation to said requests." As mentioned, in Clanton, a channel is defined by one time slot. Clanton discloses the use of slot-by-slot checking of a channel state of the slot, and actual write access to the channel/slot can temporarily be transferred to another user of higher priority. This means that the entire channel is temporarily put at the other user's disposal.

To the contrary, according to this invention, a channel is defined by a set of time slots. When a first channel of higher priority than a second channel requests one or more time slots of that second channel, individual time slots, not entire channels, are allocated to the first channel. Even though the first channel (of higher priority) may force deallocation of the entire second channel, it is not the second channel as an object in itself that is put the first channel's disposal (as in Clanton), but individual time slots that have been deallocated from the second channel.

Further, referring to the Office Action, it should be noted that the meaning of the word "deallocate" is clearly different from "allowing a higher priority subscriber unit to transmit,

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upon the central manager's assigning the time slot to the higher priority subscriber". This is explained as follows.

In Clanton, a user first wins contention for a channel. It may then temporarily suspend transmission in favour of another user with higher priority, but the status of being the user that has won contention for the channel, and thus the time slot, remains, and the user will immediately continue to transmit on the channel as soon as the temporary suspension is at end. Hence, the specific relationship between the user and the channel (the fact that the user has won contention for the channel, is in that respect preserved, or "remembered", over the temporary suspension of transmission.

To the contrary, according to this invention, when time slots are deallocated from a first channel because a second channel requests them at a higher priority, the relationship (as formed by the allocation) between the first channel and the specific time slots is broken, not for the duration of a temporary suspension, but altogether, as the time slots are deallocated from the channel. The first channel no longer has any relationship to the specific slots. Should the second channel no longer require the time slots, the first channel will not automatically be allocated the time slots again. It may contend for the time slots again, but it no longer has automatic access/relationship to these specific slots.

Further, this invention, as defined in Claim 24, expressly refers to circuit-switched channels, in which access to the channel is defined during channel set-up or during specific changes to the channel, so that no frame-by-frame processing is required to determine which user that has access to the specific slots in each individual frame. When time slots are deallocated from one channel and allocated to another channel, via the request, based upon priority levels, the channels still remain circuit-switched, as once the deallocation/allocation has been executed, there is no need for the user to check each occurrence of the time slot to verify whether it must suspend transmission for an individual time slot in favour of another user.

Although Clanton discloses that the method can be used to allow "circuit-switched users to send short messages without requiring a dedicated control channel", this does not mean that Clanton's transport scheme is circuit-switched. In Clanton, a user that has won contention for a channel/time slot is required to investigate a channel state control field for each occurrence of the time slot to check whether or it is allowed to transmit on the subject time slot or suspend transmission for the subject time slot.

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Since Claims 25 and 26, as well as Claim 29, are dependent on or relate to Claim 24 they are neither anticipated by Clanton.

In order to provide a basis for a possible examination regarding obviousness, although not being a subject of the Office Action, it should be noted that the invention has its background in circuit-switched technologies. A person of ordinary skill in the art of circuit-switched time division multiplexed transport technologies who is looking for a flexible, yet simple, way of controlling the allocation and deallocation of time slots to circuit-switched channels, has no incentive to turn to Clanton that describes instantaneous preemption of packet-switched data and accomplishes this by adding a slot-by-slot or frame-by-frame slot access control signalling. Such slot-by-slot or frame-by-frame slot access control signalling significantly increases the type of control processing complexity that the circuit-switched technology has the benefit of reducing.

Moreover, even if the skilled person would turn to Clanton for guidance, the invention would still not be obvious in view of Clanton, since Clanton would suggest adding a slot-by-slot or frame-by-frame time slot access control signalling for instantaneous preemption, rather than the circuit-switched allocation/deallocation of slots as suggested by the invention.

When it comes to the other prior art references, they either do not contribute to a solution according to the invention or are not relevant to combine with Clanton.

Response to Rejection of Claims 1-8, 10-14, 17-20 and 29

As regards paragraphs 6 and 7, for the following reasons Claims 1-8, 10-14, 17-20 and 29 are patentable over Clanton in view of Chan.

The features of Claim 1 substantially correspond to the features of Claim 24, however relating to a method instead of an apparatus. Thus, Claim 1 shows the same differences in comparison with the disclosure of Clanton as does Claim 24. There is no reason to repeat those differences.

When it comes to Chan, the disclosure thereof does not contribute noticeably to the disclosure of Clanton in the direction of the invention.

Since Claims 2-8, 10-14, 17-20 and 27 are dependent on or relate to Claim 1, they are patentable as well.

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Response to Rejection of Claim 9

As regards paragraph 8, Claim 9 is dependent on Claim 1, and is consequently patentable as well.

Response to Rejection of Claims 15-16 and 30

As regards paragraph 9, Claims 15, 16, and 30 are dependent on or relate to Claim 1, and are consequently patentable as well.

Response to Rejection of Claims 21-23 and 27

As regards paragraph 10, Claims 22, 23, and 27 have been deleted. In Claim 21, the features of “determining if there are slots available that are not allocated to any other channel and, if so, allocating such time slots to said circuit switched channel; and, if the amount of time slots so allocated to said circuit-switched channel is insufficient to meet the request; determining if there are time slots allocated to said established channels at a level of priority that is deemed lower than the requested level of priority and, if so, deallocating such time slots from such established channels and allocate so deallocated time slots to said circuit switched channel” regard aspects of the time slot allocation process where free slots are allocated first and a priority based allocation process is only attended to when there are not enough free time slots. These aspects are not disclosed in the prior art, and they are by no means obvious to a skilled person.

Response to Rejection of Claim 32

As regards paragraph 11, Claim 32 has been canceled and replaced with Claim 36. Claim 36 is dependent on Claim 24, and is therefore patentable.

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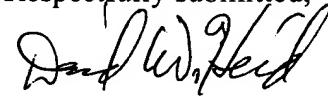
New Claims

The new Claims 33-34 and 37-41 are dependent on Claim 1, and are therefore patentable. Similarly, new Claims 35 and 36 are dependent on Claim 24 and accordingly are allowable for at least the reason of dependency.

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